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ABSTRACT

A workshop was designed to sensitize participants to the nature of their own intervention in teaching evaluation. The following served as research questions: (a) Will a workshop in self-evaluation improve self-perception of teaching performance, the perception of an internal source of evaluation, and skill in self-evaluation of teaching performance? (b) What effect do different conditions of feedback have on the development of self-perceived teaching performance, the perceptions of an internal source of evaluation, and the development of self-evaluation skills? and (c) Will the participants react favorably toward the workshop variables? Thirty graduate students were randomly placed in three feedback treatment groups. All students videotaped three microlessons and self-evaluated them. These evaluations were then compared with the evaluations of a panel of experts. Augmented feedback was given to two of the treatment groups in the form of knowledge of the results of the two evaluations (self and panel) and/or knowledge of results and a group supervisory conference. Correlated t-tests for pre- and posttest means showed statistically significant results for the three dependent variables (self-perception, panel perception, and agreement). An analysis of covariance, utilizing the pretest as a covariate, produced no significant differences between treatment groups. (Author)

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THE EFFECTS OF TRAINING AND FEEDBACK ON SELF-EVALUATION

by

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Rationale

The rationale for this study is that part of the professional responsibility of the teacher is the development of competence in self-monitoring teacher performance. This concept prompted an investigation into the effects of a workshop in self-evaluation of teaching performance utilizing videotape feedback, peer group teaching, and microlessons as a demonstration vehicle. It was assumed that insight into one's teaching behavior, the development of personal goals, attention to criteria, and the development of supervision as self-vision are essential elements in the formulation of sound supervisory practices.

The workshop was designed to sensitize participants to the nature of their own intervention in teaching evaluation. Answers to the following questions were therefore sought:

(1) Will a workshop in self-evaluation improve: (a) self-perception of teaching performance; (b) the perception of an external source of evaluation; (c) skill in self-evaluation of teaching performance?

(2) What effect do different conditions of feedback have on the development of self-perceived teaching performance, the perceptions of an external source of evaluation, and the development of self-evaluation skills?

(3) Will the participants react favorably toward the workshop variables?

Survey of the Literature

The investigator was concerned with research in self-confrontation via videotape recording, change resulting from such experiences, and the development of skill in self-evaluation. The review of the literature indicates that self-confrontation has met with widespread optimism. This optimism is shared by educators in terms of pre-service and in-service teacher training. The bulk of the evidence from studies involving self-confrontation, microteaching, videotape feedback, and self-analysis points to the effectiveness of these variables in producing change (Acheson, 1964; Allen, 1967; Allen and Ryan, 1969; Bern, 1967; Birch, 1969; Cameron and Cotrell, 1970; DeBacy, 1969; Jensen, 1968; Kerber, 1967; Legge and Asper, 1972; Olivero, 1966; Ribich, 1972; Salomon and McDonald, 1970; and Young, 1968).

This investigator sought to provide data covering a new dimension. The research indicates that comparisons between videotape feedback and a no videotape feedback condition or some other feedback condition such as audiotape have been made. It was considered important, therefore, to test the videotape feedback condition as basic to all treatments against augmented conditions.

Sample

The sample population was drawn from a total of 39 graduate students at Duquesne University who registered for a workshop in self-evaluation of teaching performance in May, 1974.

All of the students were pursuing either a Master's degree in Elementary or Secondary Education or certification in school administration and supervision. They represented various and diverse backgrounds in administration, supervision, and teaching.

Thirty students were randomly selected as subjects for the study. Further randomization of the subjects produced three treatment groups (n=10). None of the students had previous systematic experience in self-monitoring teaching performance via videotape recording. It was assumed, therefore, that the reactive effect of the videotape recording would be the same for all subjects.

Organization of the Study

The study was comprised of two phases. During phase one, a panel of experts, members of the faculty in the School of Education at Duquesne University, was trained in the use of the Teacher Performance Appraisal Scale (Johnson, 1969). The TPAS was used as the criterion measure to obtain three scores: (1) self-perception of teaching performance; (2) panel of experts' perception of teaching performance; and (3) agreement. The instrument has been used as a device for providing corrective feedback to pre-service and practicing teachers. It conceptualizes four principal lesson elements: aims, content, method, and evaluation. There are 10 items on the scale with a range of 1-7.

Pre-study interrater reliability coefficients of .80 or better were demonstrated by the panel of experts. Random samples during the study also showed .80 reliability or better.

Also during phase one, the subjects of the study were given an orientation in the use of the TPAS and were apprised of the procedures to be followed. No one was aware of his assignment or the nature of the treatment until feedback conditions were employed during the first intertape period. Each subject was assigned a number for identification. Thus, the panel of experts, with the exception of the investigator, was not aware of the treatment group assignments.

The subjects were instructed to use a mode of instruction which suited them, to choose the content for the lesson, to supply materials or aids if appropriate for the lesson, and to limit the time of the lesson to seven minutes. The class to be taught consisted of 12 other participants in the workshop.

During phase two, the subjects recorded and evaluated micro-lessons over a two-week period. Three separate recording and evaluating sessions were conducted. Each of these sessions was interspersed with an intertape period during which feedback conditions were employed. The assessment of attitude and a reaction session were the last items in this phase.

Design and Treatment Conditions

A pre-test/post-test control group design was selected (Campbell and Stanley, 1966). Each treatment group received videotape feedback via self-viewing of his own teaching per-

formance. Thus, Group I which did not received any augmented feedback served as the control group. Group II received agumented feedback in the form of a transcript which showed how well each participant in the group had agreed with the panel of experts about his performance. Group III received augmented feedback in the form of the transcript plus the opportunity to participate in a group supervisory conference.

The first evaluation served as the pre-test and the third evaluation served as the post-test. The second evaluation and the two intertape periods served as the treatment. Thus, feedback conditions were employed after the first and second evaluations.

Terms

To clarify the terminology in the study, the following definitions were made:

(1) Self-evaluation: The self-perception and self-evaluation of teaching performance as measured by the Teacher Performance Appraisal Scale and determined by viewing a videotaped recording of one's own teaching performance.

(2) Teaching performance: A videotaped microlesson quantitatively expressed as the mean of the item scores on the TPAS.

(3) Microlesson: A lesson of seven minutes duration taught by a participant to 12 other participants.

(4) Videotape recording: The recording of teaching performance which can be replayed and monitored via the videotape recorder.

(5) Feedback: The result of viewing one's own teaching per-

formance via videotape recording.

(6) Augmented feedback: The knowledge of results the subject receives of agreement between his self-evaluations and the evaluations of a panel of experts via transcript or transcript plus a group conference.

(7) Transcript: A form which indicates the results of the self-evaluations per item, the mean panel evaluation per item, the agreement per item, and a mean agreement score.

(8) Non-directive group conference: A conference in which the supervisor asks general questions about the videotaped teaching performances and the results of the evaluations. He offers no advice or direction as to what the subject should attend to or do on a subsequent teaching performance.

Dependent Variables

In order to define the dependent variable concerned with self-perception of teaching performance, the mean of the item scores on the TPAS for each subject self-evaluation was calculated to yield a self-perception of teaching performance on the first and third evaluations. The mean of the self-perception scores was calculated for the total sample. This yielded the extent and direction of the self-perceived teaching performance for the sample. The mean of the self-perception scores was then calculated for each treatment group. This yielded the extent and direction of the self-perceived teaching performance for each treatment group.

In order to define the dependent variable concerned with the panel of experts' perceptions of the teaching performances, a

panel of experts' item score mean on the TPAS for each subject was calculated on the first and third evaluations. This yielded the extent and direction of the panel's perception of teaching performance for the sample. Panel perception score means were then calculated for each treatment group.

Each evaluator on the panel rated each subject independently, and the investigator was the only one aware of the treatment group assignments. This awareness did not interfere with his objectivity at any time. Each subject was identified by number only, and at no time were the other two panel members aware of subject scores.

The strategy used to define the dependent variable concerned with agreement between the subject and the panel was to compare scores. In order to measure the overall extent to which the self-evaluation was congruent with the panel, an agreement score was obtained. For each item on the TPAS, the deviation of the subject's self-evaluation score from the mean of the panel's score was calculated. The mean deviation of the items yielded the agreement score. This represented the extent of development of self-evaluation skill. An agreement score of 1.00 or more was construed as disagreement. An agreement score of less than 1.00 was construed as agreement. Pre-test and post-test calculations were made for the total sample and for each treatment group.

A Scale for Measuring Attitudes Toward Any Practice, Form A (Remmers, 1960), was used to assess subject attitude toward attitude variables identified in the study. The median scale

value of the statements endorsed was calculated for the total sample and for each treatment group.

Statistical Analysis

Correlated tests were used to test the following hypotheses:

Ho 1: There will be no difference in self-perception between pre-test and post-test means for subjects in the workshop in self-evaluation of teaching performance.

Ho 2: There will be no difference in teaching performance between pre-test and post-test means as evaluated by a panel of experts for the subjects in the workshop.

Ho 3: There will be no difference in agreement between pre-test and post-test means for subjects in the workshop.

Using the pre-test as a covariate, an analysis of covariance was used to test the following hypotheses:

Ho 4: There will be no difference between treatment groups in self-perception of teaching performance.

Ho 5: There will be no difference between treatment groups as evaluated by a panel of experts.

Ho 6: There will be no difference between treatment groups on agreement.

Results

Table 1 shows that the workshop was effective in producing positive results with regard to each dependent variable. Sig-

nificant results indicate that the subjects as a whole had progressed.

Table 1. Correlated t Tests for Pre-test and Post-test Means

Variable	Pre-test	SD	Post-test	SD	df	t
Self	5.01	.762	5.45	.388	29	2.78**
Panel	4.02	.942	5.20	.796	29	5.15***
Agreement	1.34	.655	.68	.353	29	4.50***

**Significant at .01 ***Significant at .001

Table 2 shows that there were no significant differences between treatment groups on any of the dependent variables.

Table 2. Analysis of Covariance for Differences Between Treatment Groups Utilizing Pre-test Scores as Covariate

Comparison	df	Alpha	p	F
Self	2/26	.05	.28	1.32
Panel	2/26	.05	.11	2.38
Agreement	2/26	.05	.24	1.46

Table 3 shows that all subjects had high positive attitudes toward the variables assessed. No differences were found between treatment groups. Any scaled score above 6.00 is considered positive.

Table 3. Average Scaled Attitude Scores After Third Evaluation

Variable	Group I	Group II	Group III	Avg.
Peer group teaching	7.90	8.57	8.56	8.34
Videotape feedback	8.03	8.57	8.29	8.29
Microlesson as demonstration vehicle	8.34	8.49	8.39	8.40
Feedback condition	7.25	7.66	8.60	7.83
Practice of self-evaluation	8.22	8.67	8.55	8.68

Limitations of the Study

This study was conducted with the acknowledgment of the following limitations:

(1) Subjects were selected from registrants in a workshop in self-evaluation of teaching performance.

(2) The investigator was directly involved in the study as (a) the director of the workshop; (b) the director of both panel and subject orientations; (c) one of the members of the panel of experts; and (d) the group conference supervisor.

(3) No criteria such as age, sex, position, teaching experience, or the like were considered.

Discussion

Significant post-test differences for the total sample on

each dependent variable and high positive attitudes toward the variables employed in the workshop indicate the following:

(1) The videotape as a feedback medium is a powerful dynamic in producing change.

(2) Peer group teaching, videotape feedback, microlessons, and self-evaluation can be combined as valuable teacher training tools. Twenty subjects increased in self-perception of teaching performance; twenty-five demonstrated skill development in self-evaluation; and panel evaluations indicated that twenty-seven subjects had improved in teaching performance.

(3) Given orientation to criteria, training, and feedback, it seems that teachers can attend to their purposes and modify behavior accordingly.

(4) Highly favorable attitudes indicate that teachers might receive with favor the variables employed in this study as part of a school supervision program. Research on-site is recommended.

An analysis of covariance produced no significant differences between treatment groups. One could conclude, therefore, that the dynamic of the videotape feedback was powerful enough in itself to produce desirable results. However, several comments regarding this outcome seem warranted:

(1) It is noteworthy that the data revealed that only four subjects in the control group showed increase in self-perception of teaching performance, while 7 of 10 in Group II, and 9 of 10 in Group III saw themselves as doing a better job of teaching.

Concomitantly, the average trend in score points between pre-test and post-test was +.09 for the control group, +.15 for Group II, and +.42 for Group III. Subjects in the control group confirmed that they felt a need for interaction or some form of augmented feedback; that neutrality was developing; and that without some basis for comparison they were becoming disinterested as well as more self-critical.

Subjects in Group II felt that the production of numbers on a transcript or rating scale did not lend much meaning toward goal attainment. Thus, affective considerations became quite important within the cognitive operation of the workshop. The supervisory treatments for the control group and for Group II did produce significant cognitive results, but there was expressed affective disruption. Because these treatments are akin to many current practices in supervision in the schools - teachers are asked to evaluate their own behavior without comparative bases and without interaction with the supervisor - additional research combining cognitive and affective models is highly recommended. Extentions of augmented feedback and treatments in time, quantity, and quality should be considered.

(2) It is possible that the criterion measurement instrument caused a ceiling effect. A range of 1-7 per item did not permit adequate discrimination, particularly when subjects felt restrained in marking themselves at the 7 level.

In summary, the workshop was successful in sensitizing the participants to the nature of their own intervention in teaching

evaluation. This tends to support the results of previous studies in this area of concern. Additional research is recommended with the emphasis on the videotape as the basic feedback medium. Cognitive factors should be researched, but concern for affective factors should be considered using models of supervision as treatment.

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